

Allied Telesis Fiber Connectivity Solutions

Secure, Intelligent Infrastructure for Fiber Networks



Fiber Connectivity | Secure, Intelligent Infrastructure for Fiber Networks

So - you've decided you need fiber...

Whatever your fiber needs, Allied Telesis can help you achieve them.

At Allied Telesis we know that today's service providers offer increasingly advanced customer packages, with IP Triple Play - the convergence of voice, video and data - requiring greater bandwidth and reliability. An Allied Telesis Fiber-To-The-Home or Fiber-To-The-Premises solution provides you with reliable, future-proof next-generation broadband network infrastructure. With our solutions, your network is not only capable of the high bandwidth and prioritizing of critical data that is necessary today, but is also ready for tomorrow's sophisticated next generation applications.

If you are an enterprise business, then bandwidth, security and value are your major concerns. Bandwidth is imperative with new users and new applications all fighting for space and threatening to jam older networks. Security is non-negotiable. In today's technology-dependent world, infrastructure is vulnerable, and network security is critical. Fiber alone meets both of these requirements, while still providing the value that must be factored into any business plan.

Celebrating 20 years of leading-edge fiber products, Allied Telesis has the broadest portfolio in the industry. You can easily build your fiber network with Allied Telesis products, including switches, routers, multiservice platforms and gateways, media converters, optical pluggables, and Network Interface Cards (NICs) for desktops and laptops. From the PC to the core, we have your fiber network covered.

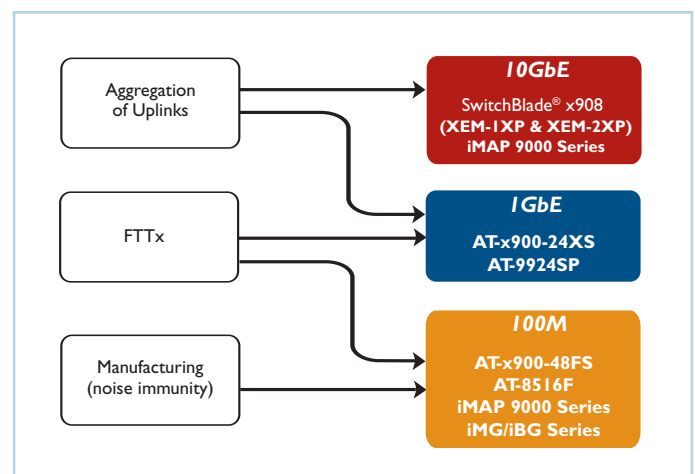
Allied Telesis products are designed to meet your fiber connectivity needs, and enhance your business - whatever your business. Read on to find out how.

Fiber Applications and Allied Telesis Products

Whether you want:

- Aggregation bandwidth for your enterprise business
- IP Triple Play services delivered to your customer's home
- Maximum data security
- Noise immunity for your manufacturing environment

Allied Telesis industry leading fiber products, as shown below, provide the ideal solution.



Fiber applications using our products

One network, limitless capacity and multiple services for the next 100 years!

Allied Telesis have got your fiber needs covered

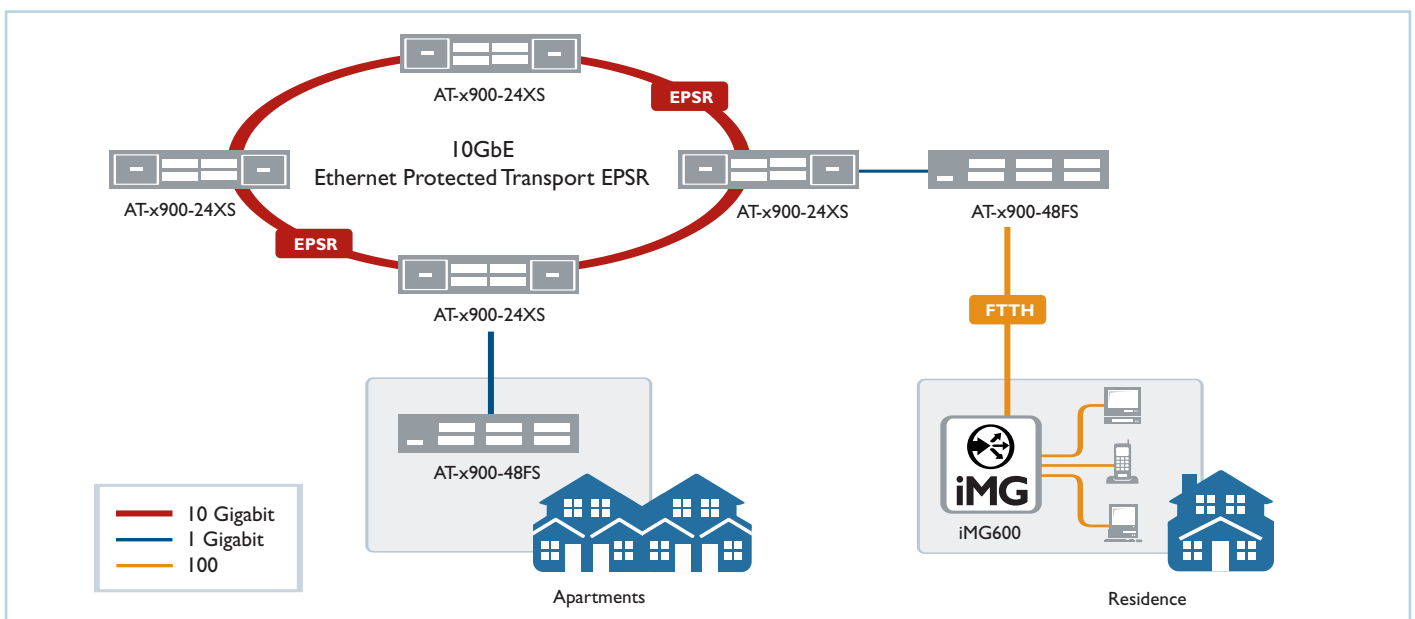
Whatever your fiber network needs, Allied Telesis have the ideal solution.

Fiber-To-The-Home (FTTH) and Fiber-To-The-Premises (FTTP)

Service providers today have increased bandwidth requirements, thanks in large part to offering customers converged voice, video and data services. The Allied Telesis range of fiber products provide this superior capacity, but that's not all they do for you. They also offer excellent network resilience, and great, low cost-per-port value. Factor in the future proof nature of a fiber infrastructure, and an Allied Telesis IP Triple Play FTTH or FTTP solution ticks all your requirement boxes.

Allied Telesis fiber switches offer the carrier-grade Ethernet Protection Switching Ring (EPSR) resiliency protocol. EPSR allows several switches to form a protected ring with sub-50ms failover. This feature is perfect for high performance in service provider access networks, with super-fast recovery ensuring high-quality content delivery, and guaranteed customer satisfaction.

With 48 100X SFP ports and four Gigabit SFP uplinks, best-in-class Quality of Service (QoS), 50°C operating temperature, and dual hot swappable AC or DC power supplies, our high density low-cost-per-port **AT-x900-48FS** switch is the perfect solution for FTTH. Advanced IP multicast and QoS features allow you to manage the delivery of IP Triple Play content, guaranteeing the seamless delivery of delay-sensitive applications like voice and video. The **AT-x900-48FS** boasts high reliability, providing maximum uptime, whether in a central office or roadside cabinet. The main ports support both single BiDi 100BX and dual-fiber 100FX hot swappable SFPs, and the four uplink ports support Gigabit fiber or copper SFPs.



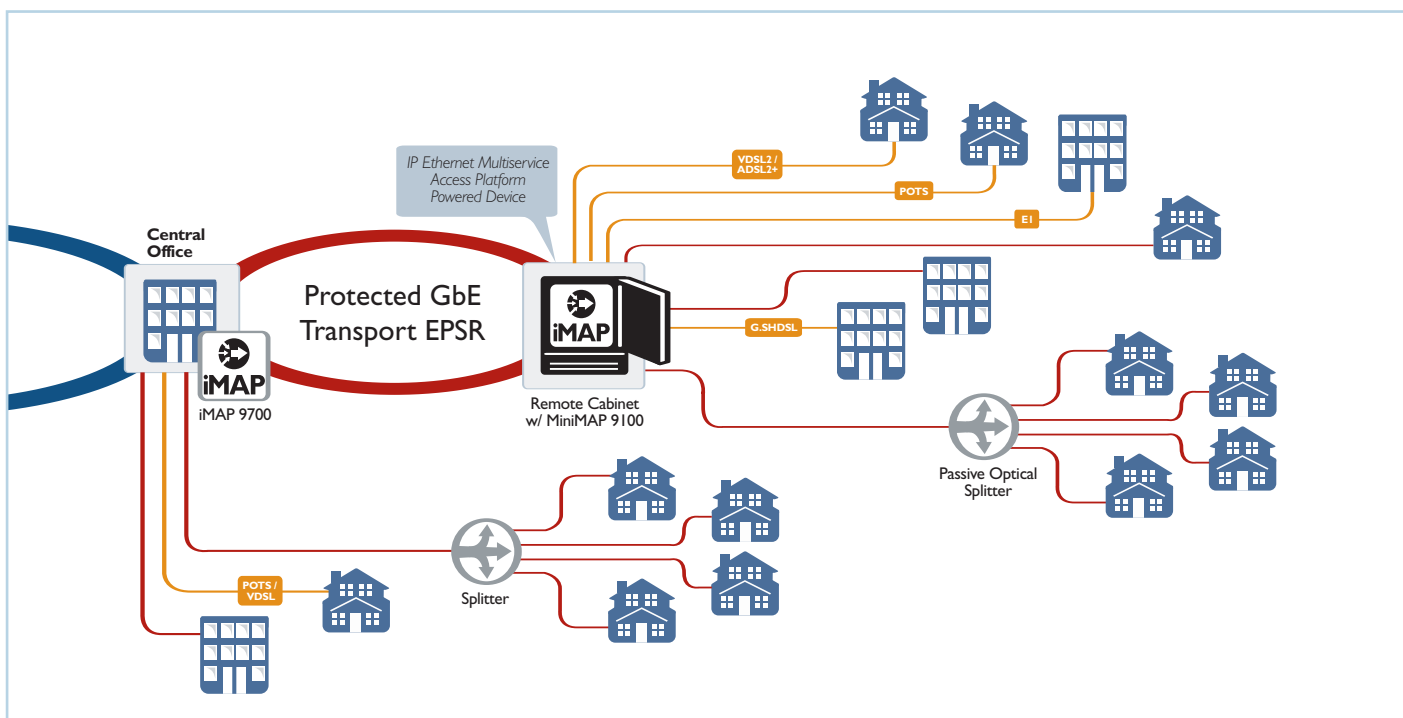
Fiber-To-The-Home (FTTH) and Fiber-To-The-Premises (FTTP)



Allied Telesis offers operators of all sizes seamless migration from existing copper infrastructure to next-generation fiber-based broadband with its state-of-the-art multiservice architectures and technologies. Current investments are protected and leveraged forward using the latest in DSL in combination with passive and active FTTH topologies from one unified system, known as the integrated Multiservice Access Platform (iMAP). To maximize footprint and coverage, operators may choose to initially connect subscribers over copper lines and gradually migrate them over to fiber as the network build progresses and the economics allow for the upgrade. Furthermore, Allied Telesis offers the industry's best range of multiservice IP Triple Play customer premise equipment engineered to align with fiber build schedules and timelines. These solutions are known as the intelligent Multiservice Gateways (iMG) for residential subscribers and the intelligent Business Gateways (iBG) for SMB end-customers.

Other Allied Telesis products that support FTTH and FTTP include:

- AT-9924SP multilayer IPv4 and IPv6 Gigabit switch
- AT-x900-24XS advanced Gigabit Layer 3+ expandable switch
- SwitchBlade® x908 advanced Layer 3 modular switch
- iMG 600 series intelligent Media Gateways
- iMAP 9000 series integrated Multiservice Access Platforms
- iBG 900 series intelligent Business Gateways



Migration From Copper to Fiber

Fiber-To-The-Desk (FTTD)

An Allied Telesis FTTD solution is ideal for Federal networks such as Security, Government, and Defence, thanks to fiber having the inherent ability to balance your bandwidth and security needs with your budgetary concerns.

Security concerns plaguing you? Fiber is ideal for confidential and even top-secret classifications because it is nearly impossible to tap without detection. Highly reliable, it is also immune to EMI/RFI interference and unsusceptible to lightning strikes - in fact, it is vulnerable only to catastrophic failures such as a cable cut. Complementing the inherent security of fiber, all Allied Telesis switches incorporate a comprehensive security feature set for intelligent filtering, ensuring data integrity and protection.

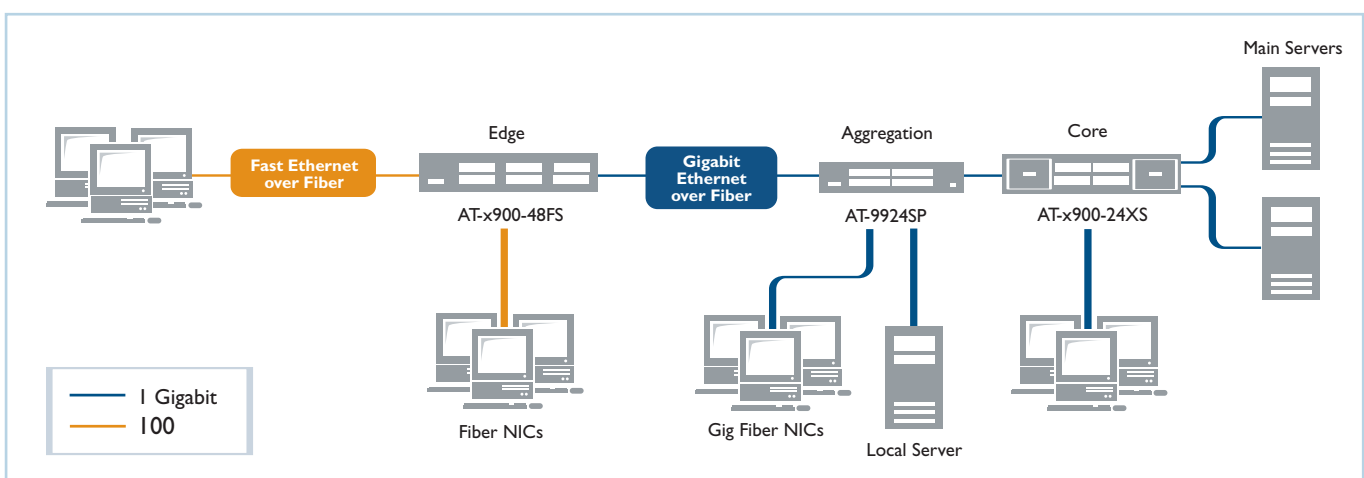
Budget woes forcing you to do more with less? No problem. An FTTD network can be centralized and run over distances of up to 2000m. That means fewer required links, less equipment, easier troubleshooting and reduced overall operating costs.

Got an application explosion hitting your desktops? Fiber has that covered too. Data consumption almost doubles each year, and fiber is the only media with the bandwidth to handle that growth well into the future. The ability to exponentially increase capacity simply by upgrading terminating equipment eliminates the need for expensive changes to building infrastructure or cabling.

The **AT-x900-48FS** switch is the ideal solution for FTTD, satisfying both security and budget requirements. With 48 100X SFP ports and four Gigabit SFP uplinks, front-to-back cooling, and dual hot swappable AC or DC power supplies, the **AT-x900-48FS** switch delivers high reliability and low-cost-per-port. To complement your fiber switches Allied Telesis has the industry's most comprehensive portfolio of fiber Network Interface Cards (NICs) - right up to Gigabit speed.

Other Allied Telesis products that support FTTD are:

- AT-8516F/SC Layer 2+ managed Fast Ethernet switch
- AT-9924SP multilayer IPv4 and IPv6 Gigabit switch
- AT-x900-24XS advanced Gigabit Layer 3+ expandable switch
- SwitchBlade x908 advanced Layer 3 modular switch



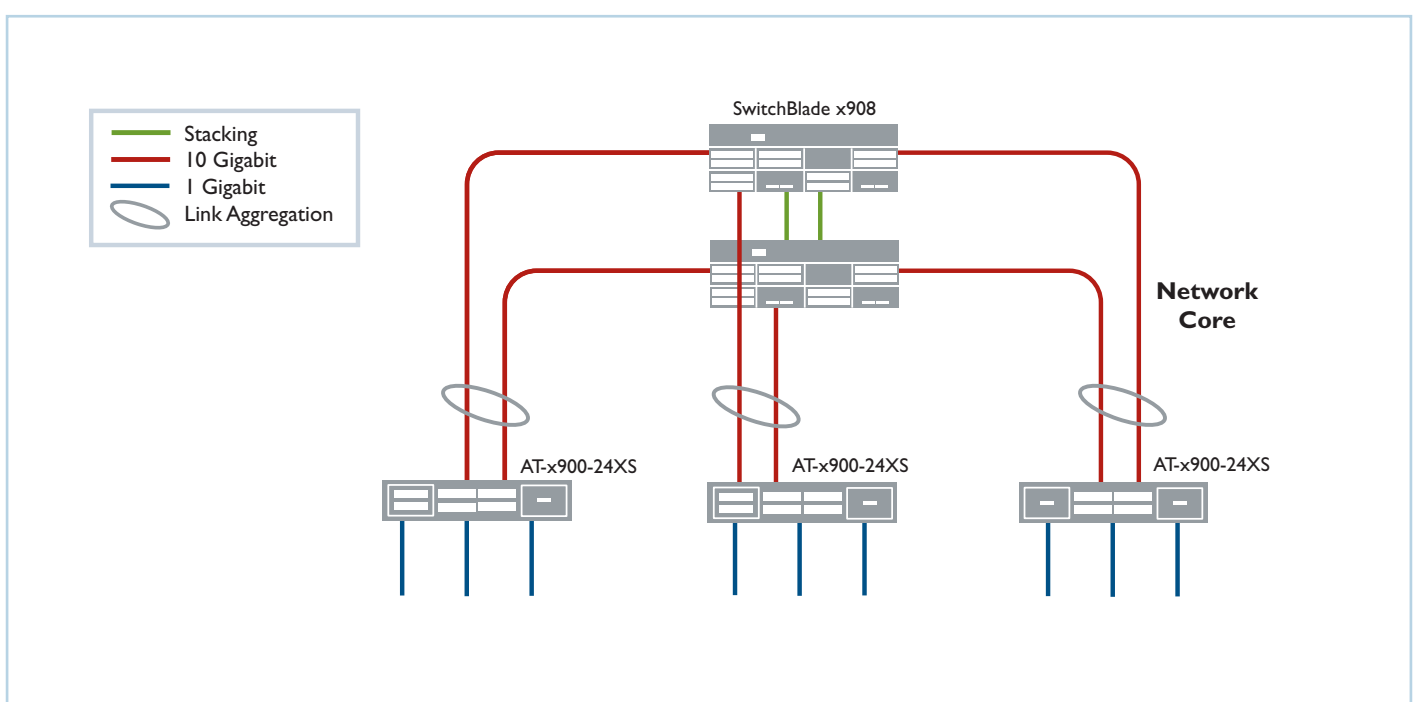
Fiber-To-The Desk (FTTD)

10 Gigabit Ethernet

Do you need more speed on your network? 10 Gigabit Ethernet is the fastest and most up to the minute of all the Ethernet standards, offering maximum data throughput for your network core. The arrival of 10 Gigabit Ethernet, also known as 10GbE, highlights the growing demand for bandwidth to meet the needs of the latest business applications and the increasingly complex nature of data.

The Allied Telesis **SwitchBlade x908** industry leading modular switch offers 10GbE expansion modules and hot swappable XFPs that provide high-speed, high-capacity fiber links. 10 Gigabit capable expansion module options are the AT-XEM-1XP 1 × 10GbE (XFP) module, and the future AT-XEM-2XP 2 × 10GbE (XFP) module. With eight high-speed expansion bays, delivering a new generation of high performance, the **SwitchBlade x908** provides for up to 16 10GbE connections, all fully non-blocking and operating at wire speed.

Combined with the x900 series expandable switches, the **SwitchBlade x908** provides a 10 Gigabit core ensuring a powerful network infrastructure for the most demanding applications.



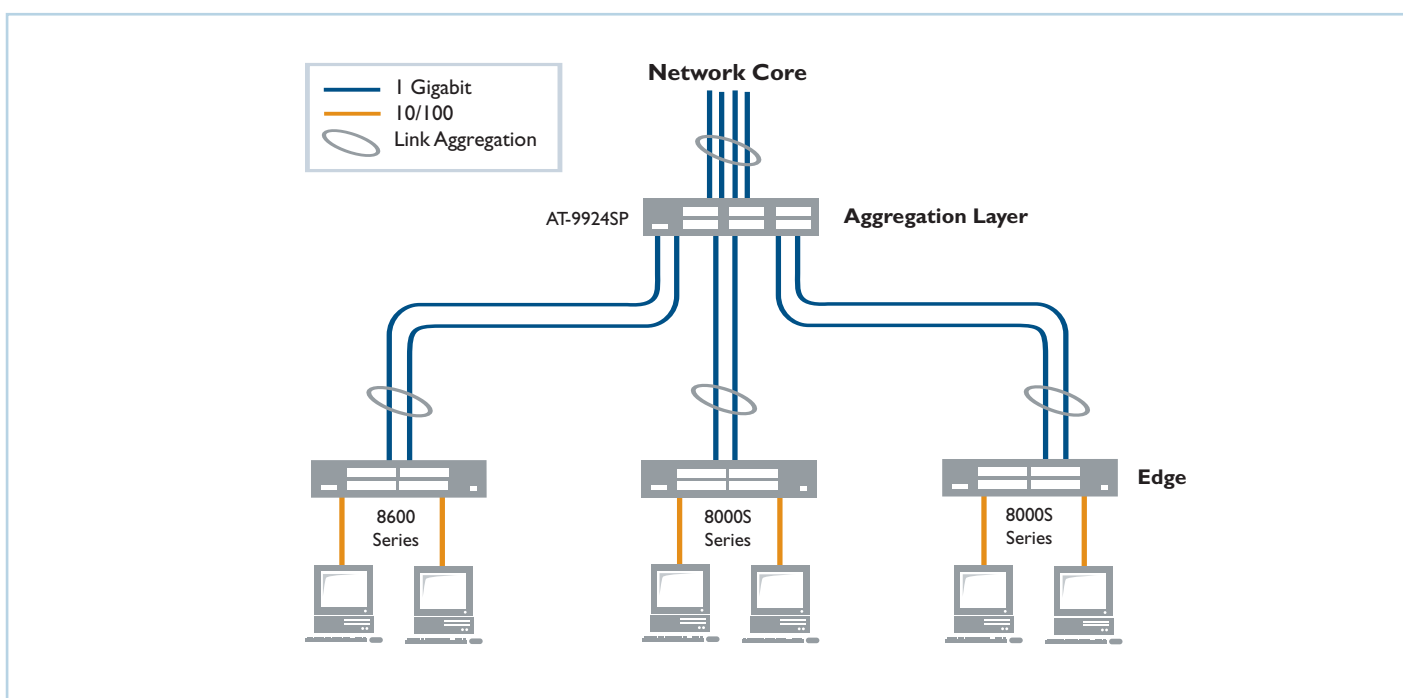


Aggregation of Gigabit Uplinks

Large enterprise networks often incorporate switches at the aggregation layer; in order to aggregate the uplinks from the edge switches that send data to the network core and application servers as required. As most edge switches typically contain Gigabit uplink ports, a fiber-capable Gigabit switch is the ideal solution at your aggregation layer:

If you have a geographically widespread network, such as a university campus, fiber can aggregate your Gigabit network connections from remote departments and buildings. Where required, we can support distances of up to 40 kilometres.

With Gigabit Ethernet on every port, the highly-featured **AT-9924SP** multilayer IPv4 and IPv6 Gigabit switch brings the high performance and value of fiber to your aggregation layer. For even more flexibility, the **AT-x900-24XS** advanced Gigabit Layer 3+ expandable switch provides the same advanced feature set with a future proof expandable hardware design.



Aggregation of Gigabit Uplinks

Manufacturing and Noise Immunity

In Industrial environments, Electromagnetic Interference (EMI) can be a big problem. Motors, welders and other industrial equipment generate a tremendous amount of electrical noise that can cause major problems with copper cabling. Using fiber in your network ensures complete noise immunity against EMI/RFI interference.

With an all-fiber network, busy industrial and manufacturing environments can rest assured that data is uncompromized, regardless of any commercial or industrial machinery operating in close proximity.

With the added benefits of no Electromagnetic Compatibility (EMC) emission, no ground loops, and industrial-level protection against lightning and high voltage surge environments, fiber can be installed confidently in any environment.

The [AT-x900-48FS](#) and the Layer 2+ managed [AT-8516F/SC](#) switches provide all-fiber Fast Ethernet switching with Gigabit uplinks. Where more Gigabit connectivity is required, the [AT-9924SP](#) and [AT-x900-24XS](#) switches are ideal.



This suite of high quality connectivity products has been designed specifically to meet the unique challenges of fiber, provides optimum security and reliability, and guarantees both a short and long term return on your investment.

Switches

10 Gigabit Ethernet Switches

SwitchBlade x908 advanced Layer 3 modular switch

- 8 x 60Gbps expansion bays

AT-x900-24XS advanced Gigabit Layer 3+ expandable switch

- 2 x 60Gbps expansion bays
- 24 x 1000X SFP ports



SwitchBlade x908

Gigabit Ethernet Switches

AT-x900-24XS advanced Gigabit Layer 3+ expandable switch

- 2 x 60Gbps expansion bays
- 24 x 1000X SFP ports

AT-9924SP Layer 3+ IPv4 and IPv6 Gigabit switch

- 24 x 100/1000X SFP ports

SB4000 series Layer 3+ modular chassis switches

- 2 x switch controllers
- 4 or 8 x line cards



AT-x900-24XS

Fast Ethernet Switches

AT-x900-48FS advanced Fast Ethernet Layer 3+ switch

- 48 x 100X SFP ports (fiber only)
- 4 x 1000X SFP uplinks

AT-8516F/SC Layer 2+ managed Fast Ethernet switch

- 16 x 100FX (SC) ports
- 2 x uplink module bays



AT-x900-48FS

iBG & iMG

intelligent Business Gateway

The iBG 900 series full-featured business multiservice gateways and routers are designed for cost-effective delivery of advanced IP communication services over a copper or fiber infrastructure.



iBG 900 series

iMAP

IP/Ethernet-based Multiservice Access Platform (iMAP)

The iMAP 9000 series carrier-grade, IP/Ethernet networking solution effectively supports IP Triple Play services simultaneously over both copper and fiber infrastructure.



iMAP 9000 series

intelligent Multiservice Gateway

The iMG 600 series full-featured active and passive Ethernet multiservice gateways provide cost-effective delivery of advanced IP Triple Play voice, video and data services.



iMG 600 series

Optical Networking

Optical Modules - XFPs, SFPs and GBICs

A wide range of Allied Telesis optical modules are available for use in applicable products.

Media Conversion

Media Converters

Converteam™ managed media conversion system

- 18 slot 2RU media conversion chassis

AT-MCF2000 managed media conversion chassis

- 2 x multi-channel blades providing 24 independent channels

MCI000 and I00 series media converters

- 2 port unmanaged, standalone Gigabit or Fast Ethernet fiber media converters



Media Conversion

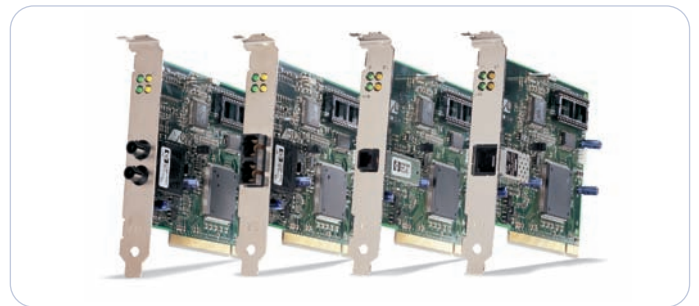
NICs

Network Interface Cards

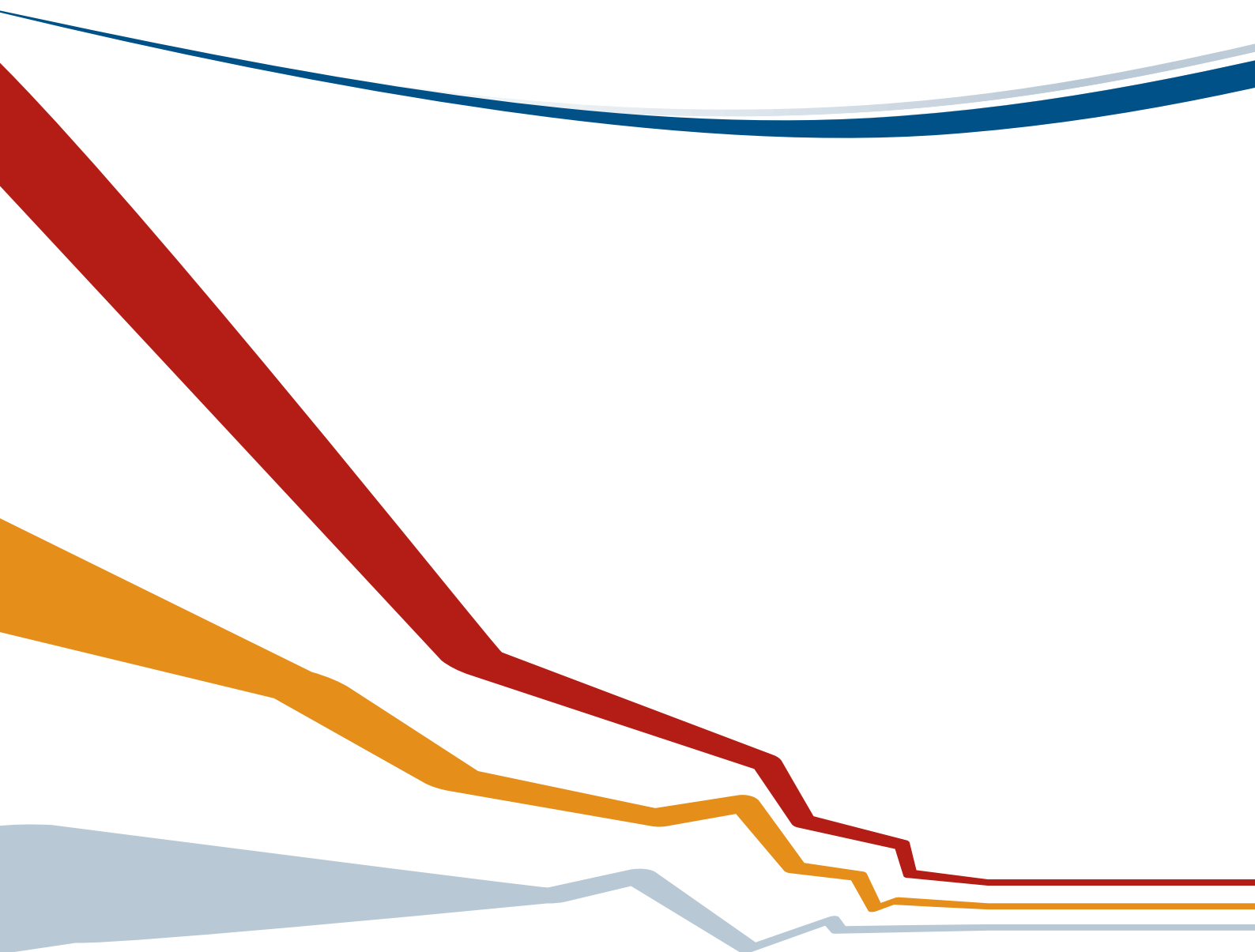
2900SX series Gigabit Ethernet fiber PCI NICs

2700FX series Fast Ethernet fiber PCI NICs

AT-280IFX 100FX fiber PCMCIA NIC



Network Interface Cards



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617-000271 Rev.A

Connecting The  World

 Allied Telesis™